

## REMARKS

Applicants acknowledge receipt of an Office Action dated January 18, 2007. In this response, Applicants have cancelled claims 1-12 without prejudice or disclaimer. Applicants have added new claims 13-22. Support for these amendments may be found throughout the Specification and in the drawings. Following entry of these amendments, claims 13-22 are currently pending in the application.

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

### **Objection to the Specification**

On page 2 of the Office Action, the PTO has objected to the Specification. In this response to the PTO's remarks regarding the phrase "the coolant becoming salted up" at page 8, lines 12-13, Applicants note that this phrase refers to the well-known salinization of the coolant that can occur during operation of the cooling circuit. In view of these comments, Applicants submit that the phrase is clear and respectfully request reconsideration and withdrawal of the outstanding objection.

### **Rejections Under 35 U.S.C. §112, 2<sup>nd</sup> Paragraph**

On page 3 of the Office Action, the PTO has rejected claims 1-12 under 35 U.S.C. §112, 2<sup>nd</sup> paragraph as allegedly being indefinite. While Applicants traverse these rejections, Applicants have cancelled claims 1-12 without prejudice or disclaimer in favor of new claims 13-22. Claims 13-22 are believed to be free of the issues raised by the PTO in the context of the §112, 2<sup>nd</sup> paragraph rejections of claims 1-12. Accordingly, Applicants submit that the outstanding rejection of claims 1-12 is now moot.

### **Rejections Under 35 U.S.C. §102**

On page 4 of the Office Action, the PTO has rejected claims 1-4 under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent 4,526,257 to Mueller *et al.* (hereafter "Mueller"). In addition, the PTO has rejected claims 1, 2, and 6 under 35 U.S.C. §102(b) as allegedly being anticipated by JP 62-210287 A to Makoto *et al.* (hereafter "Makoto"), and, on

page 5 of the Office Action, the PTO has rejected claim 10 under 35 U.S.C. §102(e) as allegedly being unpatentable over U.S. Patent 6,915,887 to Faller *et al.* (hereafter “Faller”).

Although Applicants respectfully traverse these rejections, Applicants have cancelled claims 1-4, 6 and 10 in favor of newly added claims 13-23 (which are discussed in more detail in the section “Newly Added Claims” below). In view of the cancellation of claims 1-4, 6 and 10, Applicants submit that the outstanding rejections under §102 are now moot.

#### **Rejections Under 35 U.S.C. §103**

On page 6 of the Office Action, the PTO has rejected claims 1-4 and 6-9 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent 6,725,812 to Scott *et al.* (hereafter “Scott”) in view of Faller. In addition, the PTO has rejected claim 5 under 35 U.S.C. §103(a) as allegedly being unpatentable over Scott in view of Faller and further in view of Mueller. Finally, on page 7 of the Office Action, the PTO has rejected claims 10 and 12 under 35 U.S.C. §103(a) as allegedly being unpatentable over Scott in view of Makoto.

Although Applicants respectfully traverse these rejections, Applicants have cancelled claims 1-10 and 12 in favor of newly added claims 13-22 (which are discussed in more detail in the section “Newly Added Claims” below). In view of the cancellation of claims 1-10 and 12, Applicants submit that the outstanding rejections under §103 are now moot.

#### **Newly Added Claims**

In this response, Applicants have added claims 13-22. With regard to the newly added claims, Applicants wish to provide the following general comments.

The drive for a coolant pump according to the presently claimed invention comprises a parallel connection of a fluid friction clutch and an electromagnetic clutch, each of which can optionally be connected into the drive train, *i.e.*, to ensure a redundancy (fail-safe) of the coolant pump drive. If the electromagnetic clutch fails, for example, due to lack of power, the fluid friction clutch engages, and vice versa; if the fluid friction clutch fails, the electromagnetic clutch is switched on. In the latter case, a transmission ratio of 1:1 arises; when driven by the fluid friction clutch, the coolant pump is driven at a lower speed of rotation than the driving speed of rotation (take-up speed of rotation).

With respect to independent device claim 13 and new method claim 20 (which depends from claim 13), Applicants provide the following remarks with respect to Mueller, Makoto, Faller, and Scott.

The previous rejection based upon Mueller does not apply to the presently pending claims, since Mueller does not show a drive of the type set forth in independent claim 13 for a coolant pump. While Mueller shows a drive (cf. Fig. 3, 38) with two outputs, namely a first pulley 44 and a second pulley 40 which drive different units via different belt drives (cf. Fig. 2), the drive in Mueller takes place from the crankshaft of the engine to the drive shaft 38, and via the first pulley 44 (first output pulley) and via the belt drive 46 to a coolant pump which is not illustrated (unshown water pump). The aim in Mueller is to switch off the drive of the auxiliary units via the pulley 44 and the belt drive 46 during acceleration of the vehicle in order, as a result, to relieve the engine from load. This takes place by release of the electromagnetic clutch 64 between pulley 44 and pulley 40 or drive shaft 38. When the electromagnetic clutch is released, the fluid friction clutch 60 engages and drives the pulley 44 at a reduced speed of rotation, as is illustrated in the diagram shown in Fig. 5. This results in a lower starting current inrush when the electromagnetic clutch 64 is switched on again. Mueller, however, fails to disclose a device comprising the features of claim 1.

With regard to Makoto (JP 62-210287 A), Applicants note that Makoto fails to disclose a device wherein "the drive wheel which comprises a pulley with a web", wherein "the fluid friction clutch and the electromagnetic clutch each comprise a driving disk which can be driven by the pulley," and wherein "the fluid friction clutch and the electromagnetic clutch are arranged on both sides of the web and are fastened on the drive shaft" as recited in independent claim 13.

With respect to the previous rejection based upon Faller, Applicants note that Faller shows a drive for a coolant pump, with the drive taking place via a V-belt pulley 7 with web 7a. Two clutches connected in parallel are provided, namely, an electromagnetic clutch 11, 12 and an eddy-current clutch 14, comprising permanent magnets 16 and a steel ring disk 15. The two clutches are connected in parallel and alternatively drive the drive shaft 4 of the coolant pump via the fan wheel 3. When the solenoid 11 is energized, the coolant pump is driven at a ratio of 1:1; on the other hand, without the solenoid being energized, the fan wheel 3, and therefore the drive shaft 4, is entrained by the eddy-current clutch 14, i.e., the

driving speed of rotation of the pulley 7 is stepped down (reduced) to the drive shaft of the coolant pump. Applicants note that Faller fails to disclose, *inter alia*, the presently claimed "fluid friction clutch."

Finally, with respect to Scott, Applicants note that Scott fails to disclose the presently claimed "electromagnetic clutch."

### CONCLUSION

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date April 18, 2007

By 

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